UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
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NOV 1 0 2010

Attn: Gregory Helseth
Renewable Energy Project Manager
Bureau of Land Management
Las Vegas Field Office
4701 North Torrey Pines Drive
Las Vegas, NV 89130

Subject: Final Environmental Impact Statement for the Amargosa Farm Road Solar Energy Project, Nye County, Nevada (CEQ# 20100407)

Dear Mr. Helseth:

The U.S. Environmental Protection Agency (EPA) has reviewed the Final Environmental Impact Statement (FEIS) for the Amargosa Farm Road Solar Energy Project (Project). Our review and comments are provided pursuant to the National Environmental Policy Act (NEPA), Council on Environmental Quality (CEQ) regulations (40 CFR Parts 1500-1508), and our NEPA review authority under Section 309 of the Clean Air Act.

EPA reviewed the Draft Environmental Impact Statement (DEIS) and provided comments to the Bureau of Land Management (BLM) on May 17, 2010. We rated the DEIS as *Environmental Objections – Insufficient Information* (EO-2), primarily due to concerns over potential impacts to waters of the United States, as well as concerns about the long-term availability of groundwater in the Amargosa Valley given that future appropriations have already been curtailed. We asked for a final determination of the geographic extent of jurisdictional waters in the Project area and demonstration of compliance with Clean Water Act (CWA) Section 404. We requested that the FEIS discuss the over appropriation of groundwater resources in the Amargosa Valley and recommended that Solar Millennium, LLC (Proponent) consider leasing or purchasing additional water rights to compensate for potential impacts to environmentally sensitive areas, including Devils Hole and Ash Meadows National Wildlife Refuge (NWF). We also asked for additional information on how climate change could affect the proposed Project and the indirect and cumulative effects associated with the influx of other large-scale solar energy projects proposed in the Amargosa Valley. Previously, on August 6, 2009, EPA provided extensive formal scoping comments for the proposed Project.

We appreciate the efforts of the BLM, the Proponent, and its consultants to discuss and respond to our DEIS comments, and we commend the Proponent, State, and Federal agencies for working together to develop mitigations that support environmentally preferable outcomes. In particular, we are pleased to see that the FEIS presents a more detailed and comprehensive discussion of groundwater resources and water rights in the Amargosa Valley. The FEIS also presents more explicit information about the selection of groundwater wells, including requirements to meter the project wells and submit quarterly water usage reports. We are pleased

to see that the Proponent has agreed to purchase additional groundwater rights as a water resource minimization measure designed to reduce impacts to sensitive species occurring at Ash Meadows NWF and Devils Hole. To that end, Solar Millennium has agreed to acquire no less than 236 acre-feet/year (afy) of preferably senior groundwater rights in the vicinity of the proposed Project, or closer to Devils Hole and Ash Meadows NWR.

While we recognize that these minimization measures are designed to offset impacts from the proposed Project, we remain concerned about the cumulative impacts associated with the potential development of this and other large-scale renewable energy projects in the Amargosa Valley. The FEIS presents an updated table of renewable energy projects proposed within or near the Amargosa Valley. The proposed solar projects encompass more than 150,000 acres of land (table 4-43; figure 4-12) and include more than 13,000 megawatts (MW) of energy generation. In the event of such unprecedented development, it is highly unlikely that an already over-appropriated basin with sensitive species nearby will be able to sustain additional groundwater withdrawals without significant impacts. Hence, we urge the BLM to monitor the situation closely, and conduct a more thorough cumulative impacts analysis and in-depth review of potential impacts for all affected resources, especially groundwater, critical habitat, and threatened and endangered species, with each new project.

Finally, EPA continues to have concerns about impacts to aquatic resources, particularly impacts associated with waters of the United States (waters). Despite our request for clarification of the extent of waters and impacts to these waters, the FEIS does not provide any additional information. According to the FEIS, a complete assessment of the potential effects to jurisdictional waters will be completed when the U.S. Army Corps of Engineers (USACE) issues a Jurisdictional Determination (JD). We understand that the JD is currently under review and the final determination has yet to be issued. To demonstrate compliance with EPA's 404(b)(1) Guidelines (40 CFR Part 230), the Applicant must comprehensively evaluate a range of alternatives to ensure that the *"preferred"* alternative is the *Least Environmentally Damaging Practicable Alternative* (LEDPA). As part of the environmental review process, the BLM has the responsibility to fully examine, discuss, and disclose the impacts associated with the proposed Project, including those to jurisdictional waters and other non-jurisdictional aquatic features. We consider the absence of a finalized JD and an analysis of alternatives under CWA Section 404 to be a serious deficiency in the FEIS.

EPA strongly encourages the integration of NEPA with the CWA Section 404 process to streamline permitting and to align the alternatives analyses of these processes. When these two processes occur in conjunction with one another, it can lead to significant reductions in impacts as well as greater disclosure within the EIS. In the interest of facilitating the development of the most environmentally sound renewable energy projects, we urge BLM to address these concerns in NEPA documents for future renewable energy projects.

We are available to discuss all comments and recommendations provided. Please send one hard copy and one CD ROM copy of the responses to FEIS comments and the Record of Decision to us when they are filed with our Washington D.C. Office. If you have any questions, please contact me at 415-972-3843, or contact Ann McPherson, the lead reviewer for this project. Ann can be reached at 415-972-3545 or mcpherson.ann@epa.gov.

Sincerely,

Enrique Manzanilla, Director
Communities and Ecosystem Division

Enclosures: EPA Detailed Comments

cc: Ron Wenker, Bureau of Land Management
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U.S. EPA DETAILED COMMENTS ON THE FINAL ENVIRONMENTAL IMPACT STATEMENT FOR THE AMARGOSA FARM ROAD SOLAR ENERGY PROJECT, NYE COUNTY, NEVADA, NOVEMBER 10, 2010

Compliance with Clean Water Act Section 404

a. Geographic Extent of Waters of the United States:

The U.S. Environmental Protection Agency (EPA) remains concerned about potential adverse impacts to aquatic resources. In our previous comments, we asked for clarification of the geographic extent of waters of the United States (waters) and demonstration of compliance with Section 404 of the Clean Water Act (CWA). In the response to comments, the Bureau of Land Management (BLM) indicates that the U.S. Army Corps of Engineers (USACE) will likely assert jurisdiction on certain drainages that traverse the project site, but a complete assessment of the potential effects to jurisdictional waters (waters) cannot be completed until the USACE issues a Jurisdictional Determination (JD).

The Final Environmental Impact Statement (FEIS) fails to quantify the extent of waters as requested in our previous comments. Without more detailed information, we are unable to verify the extent of waters on the Project site, as well as impacts to these waters. We remain concerned that the impacts may be of a magnitude that is of a significant environmental concern, especially within an arid ecosystem.

b. Analysis of Alternatives:

In order to comply with Section 404 of the CWA (40 CFR 230; Guidelines), the applicant must comprehensively evaluate a range of alternatives to ensure that the *"preferred"* alternative is the *Least Environmentally Damaging Practicable Alternative* (LEDPA). Identification of the LEDPA is achieved by performing an alternatives analysis that estimates the direct, indirect, and cumulative impacts to jurisdictional waters resulting from a set of on- and off-site project alternatives. Project alternatives that are not practicable and do not meet the project purpose are eliminated. The LEDPA is the remaining alternative with the fewest impacts to aquatic resources, so long as it does not have other significant adverse environmental consequences. Only when this analysis has been performed can the Applicant and the permitting authority be assured that the selected alternative is the LEDPA (40 CFR 230.10(a)).

As currently proposed, we cannot determine whether or not the preferred alternative represents the LEDPA. It is not possible to determine the LEDPA in the absence of an approved determination of the geographic extent of waters of the United States on the project site. The FEIS contains only a cursory evaluation of three off-site alternatives (pgs. 2-3, 2-4) with minimal consideration of practicable alternatives in light of costs, logistics, and existing technology as required under the Guidelines. Furthermore, the FEIS does not include a formal analysis of on-site alternatives that may reduce impacts to jurisdictional waters. For example, the FEIS provides only cursory information on the potential for reconfiguration or redesign of building footprints, drainage channels, roads, or project downsizing that could result in avoidance of jurisdictional waters.

The FEIS states that the project Proponent has considered the alternative of developing the proposed project as a single 232 megawatt (MW) plant, and that building one plant would have fewer environmental impacts (pg. 2-4). The single plant alternative is rejected, in part, because two plants allow for economies of scale and a single plant would not be as effective in meeting the project objective of supporting attainment of renewable energy mandates and goals.

EPA notes, however, that meeting renewable energy goals will, in fact, require multiple projects of varying size. From this perspective, there are no restrictions on project size when it comes to meeting renewable energy mandates and goals. Furthermore, it appears that the single plant alternative may be practicable and less environmentally damaging to jurisdictional waters when compared to the proposed project alternative. As such, a single 232 MW plant would be considered an on-site *Less Environmentally Damaging Practicable Alternative*, pursuant to the Guidelines.

c. Minimize and Avoid Potential Adverse Impacts and Mitigation:

Pursuant to the Guidelines, mitigation of project impacts begins with the avoidance and minimization of direct, indirect, and cumulative impacts to the aquatic ecosystem, followed by compensatory measures if a loss of aquatic functions and/or acreage is unavoidable. Compensatory mitigation is, therefore, intended only for unavoidable impacts to waters after the LEDPA has been determined. For this reason, it would be premature to examine in detail any mitigation proposal before compliance with 40 CFR 230.10(a) is established.

The FEIS has not clearly demonstrated that all practicable measures to minimize unavoidable impacts to potential waters of the United States have been incorporated into the proposed project design. We believe there may be project designs that avoid and minimize direct, indirect, and cumulative impacts to potential jurisdictional washes by reducing the fill footprint, utilizing existing drainage channels, and if necessary, constructing drainage channels with more natural features, such as earthen berms. In addition, the FEIS includes no compensatory mitigation measures for potential impacts to jurisdictional waters and no assessment of cumulative impacts on waters of the United States associated with other proposed energy-related projects in the area. In short, the Project appears not to comply with EPA's Guidelines, nor with the USACE and EPA's regulations governing mitigation under Section 404 of the CWA.[1]

EPA recommends that the Record of Decision (ROD) include a final determination of the geographic extent of jurisdictional waters at the Project site, based on the approved JD. The ROD should include a robust discussion of all avoidance and mitigation measures proposed for the Project, an outline of the requirements of a compensatory mitigation plan for unavoidable impacts to waters of the United States, and a commitment to timely implementation of a wetland/riparian mitigation plan to ensure no temporal loss of the affected habitat.

[1] Compensatory Mitigation for the Loss of Aquatic Resources, Final Rule, 33CFR 325 and 332, April 10, 2008.

Cumulative Impacts – Reasonably Foreseeable Projects

In our previous comments, we requested that the BLM update the list of reasonably foreseeable projects, including the large-scale solar demonstration project at the Nevada Test Site. The FEIS updated these tables but references an 8,000 MW solar energy project on the Department of Energy Yucca Mountain Nevada Test Site (pg. 4-138). We understand that the Nevada Test Site project is smaller in scale and the capacity is expected to be in the range of 100 to 1,000 MW, rather than 8,000 MW (personal communication, Carrie Stewart, 702-295-2258, 11/1/10). We are unsure whether the project listed in table 4-43 and figure 4-12 refers to another project, or the Nevada Test Site project. We recommend that this be clarified in the response to comments on the FEIS and/or within an errata sheet.